



The first Idaho Science and Aerospace Scholars (ISAS) program included events at INL's Center for Advanced Energy Studies (shown), in Boise and online.

Students design mission to Mars at Idaho Science and Aerospace Scholars academy

By [Marilyn Whitney](#), INL Communications & Governmental Affairs

Designing a 500-day manned mission to Mars may sound like science fiction, but 44 high school students did just that as part of the first [Idaho Science and Aerospace Scholars](#) (ISAS) academy this summer in Boise.

The students from across Idaho gathered at [Boise State University](#) to plan alongside [NASA](#) officials, teachers and Idaho experts in science, technology, engineering and mathematics (STEM). At the end of the weeklong experience, Idaho recognized its first 44 NASA aerospace scholars who join an elite group of alumni across the nation.

The ISAS program, a competitive experience for high school juniors, includes a rigorous online course developed by NASA and offered through the [Idaho Digital Learning Academy](#). Idaho National Laboratory's work with NASA developing radioisotope thermoelectric generators — space batteries — for space exploration like the New Horizons mission to Pluto made the laboratory a perfect fit for its role as an original industry partner for ISAS.



Students work on an engineering activity at Boise's Discovery Center of Idaho as part of the ISAS summer academy.



Scholars participated in hands-on physics demonstrations led by graduate students from Idaho State University at the regional capstone event held at CAES.

Part of the online instruction for the course includes webinars presented by Idaho STEM experts. Steve Howe with INL's [Center for Space Nuclear Research](#) (CSNR) presented a webinar on nuclear energy applications for space exploration. INL's Bob Neilson mentored the Mission Integration team charged with coordinating the overall mission elements of getting there, living there and working there.

After completing the eight-week course, students receive a high school science credit and, based on achievement in the online course, are eligible to attend the weeklong summer academy that includes a trip to [NASA's Ames Research Center in California](#).

Barbara Morgan, former astronaut and Distinguished Educator in Residence at BSU, started discussion about bringing an aerospace scholars program to Idaho with education and business leaders in the spring of 2009. Among the group was Idaho Superintendent of Public Instruction Tom Luna, who pledged funding for the pilot year of this unique STEM enrichment program.

The program was launched last January with support from partners including INL, Idaho Digital Learning Academy, [Discovery Center of Idaho](#), [Micron Foundation](#), Hewlett-Packard, Idaho Air National Guard, [University of Idaho](#) and [Idaho State University](#).

More than 70 students participated in the online portion of the program in its first year. All students, including those not eligible to attend the summer academy, were invited to regional "capstone" events designed to recognize their participation and to provide a deeper appreciation of Idaho STEM opportunities in academics and industry.

The eastern Idaho event, held at the Center for Advanced Energy Studies, featured an overview of CSNR efforts by DeLisa Rogers and presentations by interns Nathan Jerred and Jon McCulley. The event, which drew 16 students and their parents from across the state, also included a tour of INL's robotics lab, an interactive physics demonstration from ISU students and a hands-on demonstration of INL's Computer Automated Virtual Environment (CAVE™).

Luna, who spoke to Idaho's 44 scholars and their parents at the end of the summer academy in

List of 2009-2010 Idaho Science and Aerospace Scholars:

Garrison Cox – Ammon
Sean Anderson – Boise
Zachary Funke – Boise
Victoria Gunning – Boise
Jared Hand – Boise
Corbin Hennen – Boise
Samuel Jones – Boise
Scott McKenzie – Boise
Kelsey Nelson – Boise
Abigail Sevier – Boise
Jonathan Ung – Boise

Boise, said, "The Idaho Science and Aerospace Scholars Program and Summer Academy give Idaho students the unprecedented opportunity to work directly with experts in science, technology, engineering and mathematics at NASA and throughout Idaho."

Last spring, NASA awarded a \$1.2 million grant to [Idaho's State Department of Education](#) to expand the program. The state plans to serve 180 students in the 2010-2011 year. Applications for the 2011 program are [available here](#).

Visit the [Idaho Science and Aerospace Scholars Facebook group](#).

Read media coverage of the event from the [Coeur d'Alene Press](#).

[Feature Archive](#)

Patrick Yang – Boise
Marquina Araquistain – Caldwell
Zachary Howard – Caldwell
Savannah Kisling – Caldwell
Taylor Loosli – Chester
Gerhart Suppiger IV – Cocolalla
Luke Phipps – Fruitland
Jarod Armenta – Homedale
Jonathan Stacey – Homedale
Connor Hall – Idaho Falls
Michael Rynders – Idaho Falls
Kayla Evans – Kooskia
Shad Jensen – Marsing
Tyler Clark – Meridian
Dillon Irminger – Meridian
Garrett Mick – Meridian
Zachariah Steiner – Meridian
Anna Harris – Moscow
Nathanial Davis – Nampa
LaCinda Villanueva – Nampa
Sheldon Brown – Paul
Nicholas Johnson – Potlatch
Alyssa Miller – Potlatch
Forrest Potter – Potlatch
Steven Hallgren – Rathdrum
Ryan Moeller – Rexburg
Daniel Durand – Richfield
Nicholas Long – Rupert
Cody Race – Shoshone
Amanda Olsen – Shoshone
Nicholas Cordell – St. Maries
Lindsey Rush – Victor